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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,105	08/26/2003	Peter G. Webb	10004004-3	5480

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

KIM, YOUNG J

ART UNIT PAPER NUMBER

1637

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,105

Applicant(s)

WEBB, PETER G.

Examiner

Young J. Kim

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 24-35 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1637

DETAILED ACTION

The present Office Action is responsive to the Amendment received on December 2, 2005.

Preliminary Remark

Claims 1-19 and 23 are canceled.

Claim 35 is new.

Claims 20-22, 24-35 are pending and are under prosecution therefore.

Claim Objections

The objection of claims 20, 22, and 28 for missing a conjunction after step (b), made in the Office Action mailed on September 26, 2005 is withdrawn in view of the Amendment received on December 2, 2005.

Objection, New Grounds

Claim 35 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 35 recites that the processor of claim 20 further comprises a computer program product loaded therein, the computer program product comprising a computer readable storage medium having a computer program stored thereon which performs the steps, wherein said steps are identical to the function the processor of claim 20 is recited as achieving. A processor which performs this function, by inherency must have some sort of a computer program product which allows the processor to perform the recited function. Hence, such is clearly inherent. Claim 35, therefore, does not add any more limitation than which was already presented in claim 20.

Art Unit: 1637

If Applicants contend that the processor of claim 20 need not perform the function, but is just a process “capable” of achieving the steps, then Applicants are put on notice that a new rejection would be formulated for claims 20 and its dependent claims (with the exception of claim 35), wherein any reference disclosing an inkjet apparatus would anticipate the claims.

Claim Rejections - 35 USC § 101

The rejection of claims 26-28 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, made in the Office Action mailed on September 26, 2005 is withdrawn in view of the Amendment received on December 2, 2005.

Claim Rejections - 35 USC § 112

The rejection of claims 26-28 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, made in the Office Action mailed on September 26, 2005 is withdrawn in view of the Amendment received on December 2, 2005.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-22 and 24-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

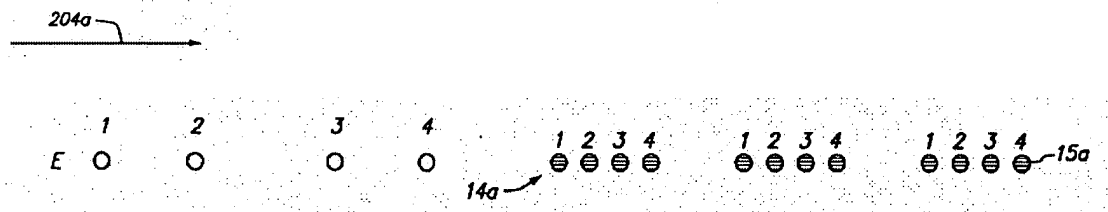
Claim 20 is rejected as being indefinite for the following reasons.

Art Unit: 1637

Claim 20, step (c) recites the phrase, “each dispenser set depositing a drop set at a distance ahead of a drop set deposited by a preceding dispenser set...”

This limitation is confusing in view of what is being disclosed in the specification.

Figure 4A of the specification, when describing the first pass of the head system comprising multiple successive sets of dispensers, discloses that dispenser set E, while moving in direction 204(a) (or to the left direction), dispenses from dispensers 4, 3, 2, 1, in that order. For clarity the Figure is reproduced below:



Hence, for example, dispenser 3, deposits a drop set at position 3, which is not “ahead” of the drop set deposited by dispenser 4 (which is the preceding dispenser) but “behind” the drop set deposited by the preceding dispenser.

The claims are in contradiction to that which is disclosed in the instant specification and clarification is required.

Claims 21, 22, 24, 25, and 25 are indefinite by way of their dependency on claim 20.

Claims 26-34 are indefinite for the same reasons set forth above.

Claim Rejections - 35 USC § 102

The rejection of claims 26-28 under 35 U.S.C. 102(b) as being anticipated by Lipshutz et al. (U.S. Patent No. 5,737,729, issued March 31, 1998), made in the Office Action mailed on September 26, 2005 is withdrawn in view of the Amendment received on December 2, 2005.

Art Unit: 1637

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-22, 24-28, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al. (U.S. Patent No. 5,624,484, issued April 29, 1997).

The present rejection is predicated on the decision set forth in *In re Mott*, 190 U.S.P.Q. 536 (CCPA 1975), wherein the court express that the "Claims must be given broadest reasonable construction their language will permit in ex parte prosecution, and applicant who uses broad language runs the risk that others may be able to support the same claim with a different disclosure."

It appears that the invention of the instant application is drawn to an apparatus which generates multiple arrays of, wherein said apparatus deposits biological molecules to fabricate the multiple arrays.

However, the presently rejected claims do not recite any biological molecules.

Takashashi et al. disclose an ink jet apparatus comprising:

- a) a head system with multiple successive sets of dispensers (see Figures 7 and 8; column 14, lines 28-29); and
- b) a transport system to advance the head system in the first direction with respect to the substrate (Figure 4; column 13, lines 26-32);

With regard to a processor communicating with the head system and the transport system to advance the head system in the first direction over the substrate while dispensing drop sets from dispenser sets, such would be inherently disclosed as the inkjet printers are

Art Unit: 1637

operated by a software and its processor that communicates with the head system and transport system for printing purposes, thereby anticipating claims 26-28 and 35.

With regard to the limitation, each dispenser set depositing a drop set at a distance ahead of a drop set deposited by a preceding dispenser set, this limitation is also inherent for the following reasons.

As evidenced by Figure 8, when a head comprising dispenser set for the colors black (left most side of the head), cyan, magenta, and yellow (right most side of the head) is employed to print a text or shape which requires the head to move from left to right direction (x-axis), wherein the text or shape has contains yellow, magenta, and cyan, would result in the yellow dispenser dispensing its first droplet, followed by the dispenser dispensing its droplet "ahead" of the first droplet dispensed by the dispenser of yellow ink, rendering claims 20 and 21.

With regard to claims 22 and 24, the printer would repeat the above steps after the paper feeds downwards (along y-axis, thus a next position), so as to print the second line (or row) of the text/shapes.

With regard to claim 25, the dispenser is an inkjet (column 14, line 36).

Claims 20-22 and 24-35 rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Blanchard, A.P. (U.S. Patent No. 6,028,189, issued February 22, 2000, filed March 20, 1997).

Blanchard discloses an inkjet apparatus comprising:

a) a head system comprising multiple successive sets of dispensers (see Figure 3, four dispensers which dispenses nucleotides C, A, G, and T); and

Art Unit: 1637

b) a transport system to advance the head system in the first direction with respect to the substrate (column 8, lines 29-32).

With regard to a processor communicating with the head system and the transport system to advance the head system in the first direction over the substrate while dispensing drop sets from dispenser sets, such would be inherently disclosed as the inkjet printers are operated by a software and its processor that communicates with the head system and transport system for printing purposes (*see* also column 8, which implicates that the fabrication is, “automated,” which would necessarily require a processor comprising a software which moves the head system and transport system), thereby anticipating claims 26-28 and 35.

With regard to the limitation, each dispenser set depositing a drop set at a distance ahead of a drop set deposited by a preceding dispenser set, this limitation is also inherent for the following reasons.

As evidenced by Figure 3, and the disclosure on column 10, beginning at line 24, when a head comprising dispenser set for the monomers T (left most side of the head), G, A, and C (right most side of the head) is employed to print an array which beings with the nucleotide T at one area and the array which beings with the nucleotide G at the adjacent area, such would require the head to move from left to right direction (x-axis), and the monomer T would be dispensed by the first dispenser, followed by the second dispenser dispensing its droplet (the monomer G) “ahead” of the first droplet (monomer T), thereby anticipating claims 20 and 21.

With regard to claim 22, the printer would repeat the above steps after the paper feeds downwards (along y-axis, thus a next position), so as to print the second line of the text/shapes.

Art Unit: 1637

With regard to claim 25, the dispenser is an inkjet (column 14, line 36).

With regard to claims 29-34, the monomers are biopolymers (column 3, lines 55-56; column 9, lines 43-50).

Conclusion

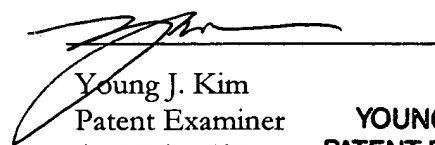
No claims are allowed.

Inquiries

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Young J. Kim whose telephone number is (571) 272-0785. The Examiner is on flex-time schedule and can best be reached from 8:30 a.m. to 4:30 p.m. The Examiner can also be reached via e-mail to Young.Kim@uspto.gov. However, the office cannot guarantee security through the e-mail system nor should official papers be transmitted through this route.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Gary Benzion, can be reached at (571) 272-0782.

Papers related to this application may be submitted to Art Unit 1637 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If applicant does submit a paper by FAX, the original copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office. All official documents must be sent to the Official Tech Center Fax number: (571) 273-8300. For Unofficial documents, faxes can be sent directly to the Examiner at (571) 273-0785. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1600.


Young J. Kim
Patent Examiner
Art Unit 1637

3/8/2006

**YOUNG J. KIM
PATENT EXAMINER**

